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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,848	02/18/2004	Michael Thomas Kurdziel	RF-235 (50589)	2513

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EXAMINER	
NOBAHAR, ABDULHAKIM	
ART UNIT	PAPER NUMBER
2132	

NOTIFICATION DATE	DELIVERY MODE
04/16/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

creganoa@addmg.com

Office Action Summary	Application No.	Applicant(s)	
	10/780,848	KURDZIEL ET AL.	
	Examiner	Art Unit	
	ABDULHAKIM NOBAHAR	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to applicants' amendment filed on 01/24/2008.

2. Claims 1-26 are pending.

3. Applicant's arguments with respect to claims 1, 10 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by the Kanda et al (6,769,063 B1; hereinafter Kanda).

In reference to claims 1, 10 and 18, Kanda discloses:

a cryptographic device (see Figs. 1 and 4) comprising:

a key scheduler providing a key data block comprising a plurality of sub-key data blocks (see Fig. 1, and Fig. 4, block 20); and

An input stage receiving an input data block (see Fig. 1, 64; Fig. 2, block 17; Fig. 4, block 301; Fig. 5, block 341) and a key data block comprising a plurality of sub-key data blocks (see Fig. 1, master key, block 21 and K0, K1…K15; col. 9, lines 21-27; Fig. 4, blocks 320-322), and generating a plurality of first signals therefrom, that are in parallel based upon the input data block and a key data block (see Fig. 2, where a plurality of subkeys 6 are generated from the input data block R1 and key block of K1; Fig. 5, in0-in3).

An intermediate stage connected to said input stage (see Fig. 2, S-boxes S0-S7; Fig. 5, blocks 343s and 345s) and comprising

A plurality of substitution units operating in parallel, each substituting data within a respective first signal (see col. 2, lines 22-39; Fig. 2, S-boxes S0-S7; Fig. 5, blocks non-linear transformation parts 343s and 345s), and

A diffuser connected to said plurality of substitution units for mixing data to generate a diffused signal (see Fig. 2, S-boxes S0-S7; Fig. 5, block 346, where the combining part 346 and signal 32 correspond to the recited diffuser and diffused signal, respectively),

An output stage connected to said intermediate stage for repetitively looping back the diffused signal to said input stage for combination with a next sub-key data block (see col. 1, lines 42-67; Fig. 4, where every round processing part 38 provide an output to the next one to be combined with the another subkey in the non-linear function part and

the round processing corresponds to the recited repetitively looping back; col. 9, lines 4-20; Fig. 13, where each round has an output part similar to the output part 309),

In reference to claims 2 and 19, Kanda discloses:
a cryptographic device according to claim 1 wherein the looping back is repeated a predetermined number of times; and wherein said output stage provides an output signal for the cryptographic device after the repetitively looping back is complete (see col. 9, lines 4-20, where N specifies the number rounds or the number of times that the non-linear processing is repeated and col. 9, lines 64-67).

In reference to claims 3, 11 and 20, Kanda discloses:
a cryptographic device according to claim 2 wherein the output signal is further combined with a final sub-key data block (see Fig. 13, block 308).

In reference to claims 4, 12 and 21, Kanda discloses:
a cryptographic device according to Claim 1 wherein each substitution unit performs a non-linear substitution based upon at least one look-up table (see col. 2, lines 31-34; Fig. 13, block 304).

In reference to claims 5, 13 and 22, Kanda discloses:
a cryptographic device according to claim 1, wherein said diffuser comprises a shift register and a look-up table associated therewith (see col. 13, line 63-col. 14, line 28,

where the logical linear operations correspond to the recited shift registers; col. 16, lines 40-46).

In reference to claims 6, 14 and 23, Kanda discloses:

a cryptographic device according to claim 1 wherein said diffuser comprises a plurality of shift registers and a plurality of look-up tables associated therewith (see col. 13, line 63-col. 14, line 28, where the logical linear operations correspond to the recited shift register).

In reference to claims 7, 15 and 24, Kanda discloses:

a cryptographic device according to claim 1 wherein said output stage performs a row-shift operation on the diffused output signal before being looped back to said input stage (see col. 9, lines 36-40, where the bit rotation corresponds to the recited row-shift operation and col. 13, line 63-col. 14, line 28, where the bit rotation corresponds to the recited row-shift register).

In reference to claims 8, 16 and 25, Kanda discloses:

a cryptographic device according to claim 1 wherein said output stage performs a column-mix operation on the diffused output signal being looped back to said input stage (see col. 12, lines 31-45; col. 13, lines 37-41).

In reference to claims 9, 17 and 26, Kanda discloses:

A cryptographic device according to Claim 1 wherein said output stage comprises a counter for counting a number of times the diffused output signal is looped back to said input stage (see col. 9, lines 64-37; Fig. 11, step S7).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdulhakim Nobahar/
Examiner, Art Unit 2132

April 9, 2008

/Gilberto Barron Jr/
Supervisory Patent Examiner, Art Unit 2132